#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

#### WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-012776 Address: 333 Burma Road **Date Inspected:** 22-Mar-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Li Yang **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

> **Component:** OBG

**Summary of Items Observed:** 

**Bridge No:** 

34-0006

On this day CALTRANS OSM Quality Assurance Inspector (QA) Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

TRIAL ASSEMBLY YARD

MAGNETIC PARTICLE INSPECTION

**OBG SEGMENT 7 EAST** 

ZPMC Notification No: 005397

This Q.A Inspector performed Magnetic particle Inspection of approximately 15% of the area previously tested and accepted by ZPMC Quality control personnel. This QA Inspector generated a (M.T) report for this date. The members are identified as the OBG segment 7East. Designation is as follows.

DP654-001-009, 010; DP662-001-009, 010; EP089-001-007, 008; SP337-001-001~004; SP364-001-009~012; SP570-001-009~012; EP077-001-005, 006; SP449-001-015, 016; SP610-001-001~004; BP062-001-015~022; SP461-001-017, 018.

#### ULTRASONIC INSPECTION

**OBG 7AE-7BE** 

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously

## WELDING INSPECTION REPORT

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accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. Rejectable indications were found.

Weld identification numbers were

OBE7B-004 (OBG 7AE-7BE, S.P (bike path side-C5))

This QA Inspector performed conventional UT (Ultrasonic Testing) after ABF UT department for detection of planar transverse indication.

For more information refer the ABF/CT report dated on 03/22/2010

This QA Inspector randomly observed the following work in progress.

#### **OBG SEGMENT 7AW-7BW-7CW**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 045196 performing Shielded Metal Arc Welding process for weld SEG035-044 located on PCMK weld between deck panel and edge panel (cross beam side) in OBG segment 7CW. ZPMC QC Mr. Feng Yang Jun monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-TC-U4B-FCM-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066361 performing Shielded Metal Arc Welding process for weld CA035-006 located on PCMK weld between deck panel and edge panel (Counter weight side) in OBG segment 7BW. ZPMC QC Mr. Feng Yang Jun monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-TC-U4B-FCM-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067571 performing Shielded Metal Arc Welding process for weld OBW7B-009 located on PCMK side panel splice weld between OBG segment 7BW and 7CW (cross beam side). ZPMC QC Mr. Feng Yang Jun monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-BU2-FCM-1.

### **OBG SEGMENT 7AE-BE-7CE**

This Quality Assurance (QA) Inspector observed ABF QA Inspector performing Ultrasonic Inspection for deck panel splice weld between OBG segment 7AE and 7BE.

This Quality Assurance (QA) Inspector observed ZPMC NDT Inspector performing Magnetic Particle Inspection for side panel splice weld between OBG segment 7CE and 7BE (cross beam side).

Unless otherwise noted, all work observed on this dated appeared to generally comply with applicable contract documents.

# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Utekar,Shrikant	Quality Assurance Inspector
Reviewed By:	Dawson,Paul	QA Reviewer